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# **What Predicts Mental Health in Midlife and Older Women? Results from the Australian Healthy Aging of Women Study**

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# Background

- Decrements in mental health are associated with a wide variety of factors including:
  - poverty (1-3)
  - Stress and negative early life experiences (3)
  - decreased level of social support (4)
  - unemployment (5)

# Background

- Poor mental health has also been linked with lifestyle factors like tobacco smoking(6), physical inactivity(7), and being overweight or obese(8)
- Other studies however, have failed to find relationships between mental health and lifestyle behaviours and body weight (9,10)

# Background

- Other factors that may explain differences in poor mental health
  - Gender (11)
  - Gender and related experiences of adversity and social disadvantage (11-13)
  - Gender, adversity and social disadvantage and modifiable lifestyle factors (14-16)



# Purpose of the study

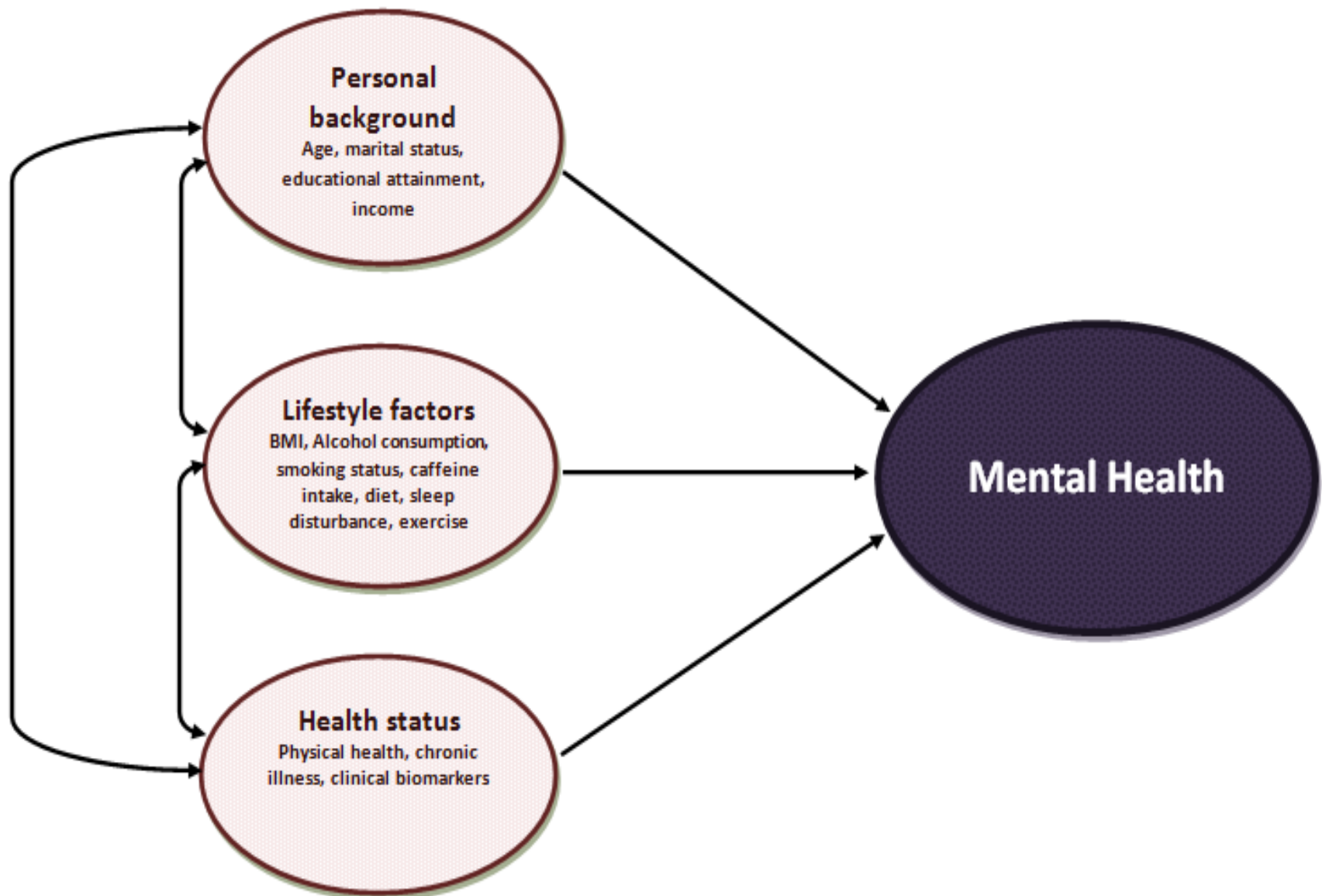
The purpose of this study is to examine the relative influence of a range of modifiable lifestyle factors associated with poor mental health in women as they age.

# Methods

- This study is part of the longitudinal Healthy Aging of Women (HOW) Study
- Data were collected from women in 2001, 2006 and again in 2011

*Today we are presenting cross-sectional data  
from 330 women participating in the  
study in 2011*

## Hypothesised model of the correlates of mental health in midlife and older women



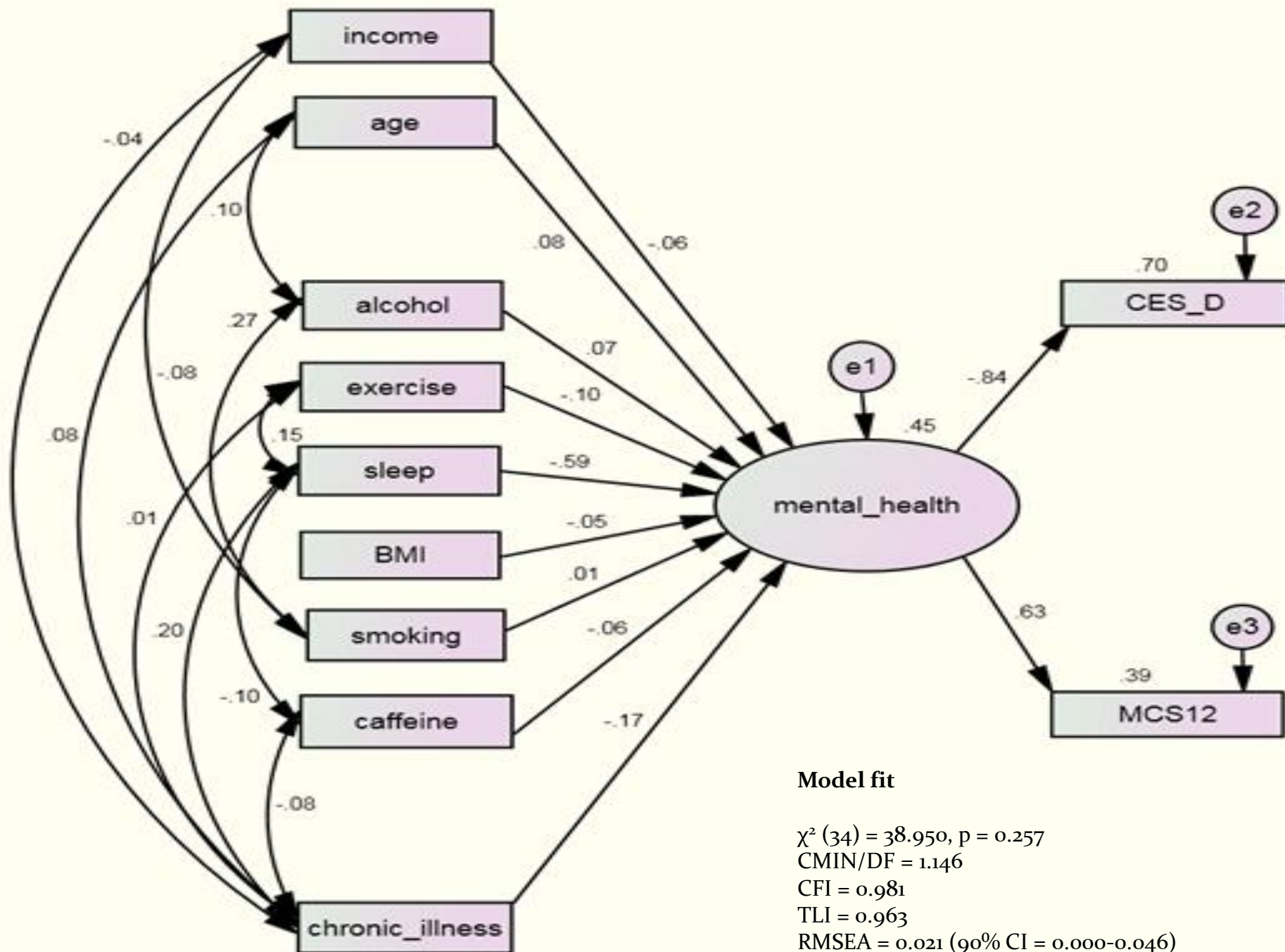


# Measures

- Mental Health
  - Medical Outcomes Study Short Form 12 (SF-12<sup>®</sup>) (17)
  - Center for Epidemiologic Studies Depression Scale (CES-D) (18)
- Physical health and chronic illness
  - Physical health was measured using the SF-12<sup>®</sup> Physical Health Component Summary Score (PCS) (17)
  - Self-reported diagnosis with ischemic heart disease, stroke, breast cancer; non-insulin dependent diabetes mellitus, anxiety and depression (18)
- Modifiable lifestyle factors
  - BMI (19)
  - physical activity, dietary intake, alcohol intake, caffeine consumption, smoking status (20)
  - sleep (21)

Variables	N	Percentage
Mean age in years (SD)	343	64.8 (2.8)
<i>Country of birth</i>		
Australia or New Zealand	295	86.8
Europe	30	8.8
Other country	15	4.4
<i>Marital status</i>		
Married or living with a partner	248	73.2
Divorced, separated or other	78	23.0
Single (never married)	13	3.8
<i>Highest educational achievement</i>		
Junior school or less	179	52.8
Secondary school	46	13.6
Diploma or certificate	57	16.8
Bachelor degree or higher	57	16.8
<i>Gross household income</i>		
Low (>\$20000AUD)	74	21.8
Middle (\$20-\$80000AUD)	233	68.5
High (<\$80000AUD)	33	9.7

	N	Mental Health (SF12) Mean score	p value	Depressive Symptoms (CES-D) Mean score	p value
<i>Smoking</i>					
Never	221	54.5	0.262	14.2	0.732
In the past but not now	91	54.5		13.8	
Currently	27	51.9		14.8	
<i>Exercise in the past month</i>					
5 or more times weekly	88	55.5	0.128	12.9	0.043
1-4 times weekly	166	54.2		14.3	
None	85	53.1		15.2	
<i>Body mass index</i>					
Underweight	2	55.5	0.934	11.0	0.203
Normal weight range	107	54.5		13.3	
Overweight or obese	230	54.2		14.5	
<i>Alcohol consumption per week</i>					
None	162	54.1	0.166	14.7	0.289
1-5 times weekly	127	53.8		13.7	
6-7 times weekly	50	56.2		13.6	
<i>Caffeine intake</i>					
None	19	57.1	0.288	13.0	0.047
Partially	9	54.2		18.6	
Not at all	312	54.1		14.1	
<i>Sleep</i>					
Good sleeper	217	56.2	<0.001	12.7	<0.001
Poor sleeper	80	49.3		19.1	
<i>Burden of disease</i>					
None	232	55.2	<0.001	13.3	<0.001
1 chronic condition	72	53.4		15.2	
2 or more chronic conditions	36	49.7		17.9	



### Model fit

$\chi^2 (34) = 38.950, p = 0.257$   
CMIN/DF = 1.146  
CFI = 0.981  
TLI = 0.963  
RMSEA = 0.021 (90% CI = 0.000-0.046)

# Conclusions

- The mental health of sample was generally comparable with women from other studies
  - MCS scores for this sample were similar to other older Australians (mean difference = 0.89; 95% CI 0.05-1.7,  $p = 0.04$  and mean difference = 0.49; 95% CI -0.35-1.3,  $p = 0.24$ ) (22, 23)
  - CES-D scores showed slightly more depressive symptoms than other Australian populations (mean difference - 3.9; 95% CI 3.2-4.6,  $p < 0.001$  and mean difference 2.4, 95% CI 1.7-3.0,  $p < 0.001$ )(24, 25)

# Conclusions

- Consistent with previous research found sleep and chronic illness influenced mental health (26-28)
- In contrast with previous research which has suggested that psychological distress is related to unhealthy lifestyle and obesity (6,7,10)

# Conclusions

- Limitations of the study
  - attrition over time may have influenced the representativeness of the sample
  - Changing data collection tools have made longitudinal analysis complex
  - Self-reported data

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